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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/304,879	05/04/1999	HAROLD W. JOHNSON	1212	1275

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-EXAMINER

WEST, LEWIS G

ART UNIT	PAPER NUMBER
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2682

14

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/304,879

Applicant(s)

JOHNSON, HAROLD W.

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,10-42,44 and 51-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,10-42,44 and 51-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 May 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed July 8, 2004 have been fully considered but they are not persuasive. By definition, more than one communication service is involved in MAC layer processing as the function is to determine the amount of bandwidth used for the respective services. Raychaudhuri discloses a predetermined priority scheme for dealing with channels for these services. Applicant now describes in detail a process of channel reduction, and using priority in a specific way not specifically described in the originally filed application, see the rejection under 35 USC 112 that follows.

Arguments regarding the meaning of "allocate" versus "configure" are unpersuasive because both are broad terms, and must be given the broadest reasonable interpretation.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 42 and the remaining claims that depend therefrom are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant now describes in detail a process of channel reduction, and using priority in a specific way not specifically described in the originally filed application,

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specifically “by identifying a first number of channels of a section of channels of the MAC layer of the wireless transmission link for the requested first communication service; receiving a second request for a second communication service into the base stations system over the wireless transmission link wherein the second communication service is different from the first communication service; determining if the second communication service has a higher priority than the first communication service; in response to determining that the second communication service has a higher priority than the first communication service, dynamically configuring the MAC layer for the second communication service by identifying a second number of channels of the section of channels of the MAC layer and reducing the first number of channels of the MAC layer of the wireless transmission link for the first communication service”. This is more detailed than what is in the specification and as a whole is not implicit, inherent or stated in the originally filed application. Furthermore regarding the dependent claims, there is not support for using specific logic types to specifically determine that one communication has priority over another. All unsupported matter must be cancelled from the claims.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 3, 10-11, 13-16, 18, 22, 27, 30-42, 44, 51-52, 54-57, 59, 63, 68 and 71-82 are rejected under 35 U.S.C. 102(b) as being anticipated by Raychaudhuri.

Regarding claim 1, Raychaudhuri discloses a method for communicating between a communications device and a network system, the method comprising: receiving a first request for a first communication service into a base station system over a wireless transmission link; in response to receiving the first request, dynamically configuring a media access control (MAC) layer in the wireless transmission link for the requested first communication service by identifying a first number of channels of a section of channels of the MAC layer of the wireless transmission link for the requested first communication service; receiving a second request for a second communication service into the base stations system over the wireless transmission link wherein the second communication service is different from the first communication service; determining if the second communication service has a higher priority than the first communication service (Col. 11 lines 50-59); in response to determining that the second communication service has a higher priority than the first communication service, dynamically configuring the MAC layer for the second communication service by identifying a second number of channels of the section of channels of the MAC layer and reducing the first number of channels of the MAC layer of the wireless transmission link for the first communication service; and generating and transmitting an instruction to provide the requested first communication service and the second communication service over the wireless transmission link using the dynamically configured MAC layer. (Column 7 lines 20-40; column 9 lines 42-67)

Regarding claim 3, Raychaudhuri discloses the method of claim 2 wherein identifying the section of the MAC layer of the wireless transmission link for the

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requested communication service further comprises identifying a control family for the requested communication services wherein the control family relates to the section of the MAC layer. (Col. 11 line 50- col. 12 line 60)

Regarding claim 10, Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of prorating among communication services based on usage parameter control values. (Col. 7 lines 6-55)

Regarding claim 11, Raychaudhuri discloses The method of claim 2 wherein arbitrating access is further comprised of using first come first serve logic. (Col. 3 lines 52-61)

Regarding claim 13, Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of using fair queuing logic. (Col. 3 lines 52-61)

Regarding claim 14, Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of using burst servicing logic. (Col. 3 lines 52-61)

Regarding claim 15, Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of using time of expiry logic. (Col. 10 lines 33-39)

Regarding claim 16, Raychaudhuri discloses the method of claim 1 wherein the communication service is voice communication. (Col. 4 line 36-53)

Regarding claim 18, Raychaudhuri discloses the method of claim 1 wherein the communication service is modem communication. (Col. 4 line 36-53)

Regarding claim 22, Raychaudhuri discloses the method of claim 1 wherein the communication service is data transfer. (Col. 4 line 36-53)

Regarding claim 27, Raychaudhuri discloses the method of claim 1 wherein the communication service is desktop multimedia communication. (Col. 4 line 36-53)

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Regarding claim 30, Raychaudhuri discloses the method of claim 1 wherein dynamically configuring the MAC layer in the wireless transmission link is based on delivery requirements of communication services. (Col. 7 lines 6-40)

Regarding claim 31, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is time dependency. (Col. 7 lines 6-40)

Regarding claim 32, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is a need for real time communication. (Col. 4 line 36-53)

Regarding claim 33, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is quality of service. (Col. 7 lines 6-40)

Regarding claim 34, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is traffic pattern. (Col. 11 line 50- col. 12 line 60)

Regarding claim 35, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is bandwidth. (Col. 3 lines 62-64)

Regarding claim 36, Raychaudhuri discloses the method of claim 30 wherein the delivery requirement is grade of service. (Col. 7 lines 6-40)

Regarding claim 37, Raychaudhuri discloses the method of claim 1 wherein the MAC layer of the wireless transmission link further comprises a fixed allocation sub frame and a dynamic allocation sub frame. (Col. 7 lines 6-40)

Regarding claim 38, Raychaudhuri discloses the method of claim 37 wherein the fixed allocation sub frame further comprises requests slots for reservation information. (Col. 7 lines 6-19)

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Regarding claim 39, Raychaudhuri discloses the method of claim 37 wherein the fixed allocation sub frame further comprises constant bit rate slots for voice packets.

(Col. 7 lines 6-40)

Regarding claim 40, Raychaudhuri discloses The method of claim 37 wherein the dynamic allocation sub frame further comprises variable bit rate slots for variable bit rate packets. (Col. 7 lines 6-40)

Regarding claim 41, Raychaudhuri discloses the method of claim 37 wherein the dynamic allocation sub frame further comprises data slots for data packets. (Col. 7 lines 6-40)

Regarding claim 42, Raychaudhuri discloses a software product comprising: communication software operational when executed by a processor to direct the processor to receive a request for a communication service into a base station system over a wireless transmission link, in response to receiving the request, dynamically configure a media access control (MAC) layer in the wireless transmission link for the requested communication service by identifying a first number of channels of a section of channels of the MAC layer of the wireless transmission link for the requested first communication service; receiving a second request for a second communication service into the base stations system over the wireless transmission link wherein the second communication service is different from the first communication service; determining if the second communication service has a higher priority than the first communication service (Col. 11 lines 50-59);; in response to determining that the second communication service has a higher priority than the first communication service, dynamically configuring the MAC layer for the second communication service by identifying a second number of channels

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of the section of channels of the MAC layer and reducing the first number of channels of the MAC layer of the wireless transmission link for the first communication service, and generate and transmit an instruction to provide the requested first and second communication services over the wireless transmission link using the dynamically configured MAC layer; and a software storage medium operational to store the communication software. (Column 7 lines 20-40; column 9 lines 42-67)

Regarding claim 44, Raychaudhuri discloses The software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to identify a control family for the requested communication services wherein the control family relates to the section of the MAC layer. (Col. 11 line 50- col. 12 line 60)

Regarding claim 51, Raychaudhuri discloses The software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to prorate among communication services based on usage parameter control values. (Column 7 lines 20-40)

Regarding claim 52, Raychaudhuri discloses The software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to use first come first serve logic. (Col. 3 lines 52-61)

Regarding claim 54, Raychaudhuri discloses the software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to use fair queuing logic. (Col. 3 lines 52-61)

Regarding claim 55, Raychaudhuri discloses The software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to use burst servicing logic. (Col. 3 lines 52-61)

Regarding claim 56, Raychaudhuri discloses the software product of claim 43 wherein the communication software is operational when executed by the processor to direct the processor to use time of expiry logic. (Col. 10 lines 33-39)

Regarding claim 57, Raychaudhuri discloses the method of claim 1 wherein the communication service is voice communication. (Col. 4 line 36-53)

Regarding claim 59, Raychaudhuri discloses the method of claim 1 wherein the communication service is modem communication. (Col. 4 line 36-53)

Regarding claim 63, Raychaudhuri discloses the method of claim 1 wherein the communication service is data transfer. (Col. 4 line 36-53)

Regarding claim 68, Raychaudhuri discloses the method of claim 1 wherein the communication service is desktop multimedia communication. (Col. 4 line 36-53)

Regarding claim 71, Raychaudhuri discloses The software product of claim 42 wherein the communication software is operational when executed by a processor to direct the processor to dynamically configure the MAC layer in the wireless transmission link based on delivery requirements of communication services. (Col. 7 lines 6-40)

Regarding claim 72, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is time dependency. (Col. 7 lines 6-40)

Regarding claim 73, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is a need for real time communication. (Col. 4 line 36-53)

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Regarding claim 74, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is quality of service. (Col. 7 lines 6-40)

Regarding claim 75, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is traffic pattern. (Col. 11 line 50- col. 12 line 60)

Regarding claim 76, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is bandwidth. (Col. 3 lines 62-64)

Regarding claim 77, Raychaudhuri discloses the software product of claim 71 wherein the delivery requirement is grade of service. (Col. 7 lines 6-40)

Regarding claim 78, Raychaudhuri discloses the software product of claim 42 wherein the MAC layer of the wireless transmission link further comprises a fixed allocation sub frame and a dynamic allocation sub frame. (Col. 7 lines 6-40)

Regarding claim 79, Raychaudhuri discloses the software product of claim 78 wherein the fixed allocation sub frame further comprises requests slots for reservation information. (Col. 7 lines 6-40)

Regarding claim 80, Raychaudhuri discloses the software product of claim 78 wherein the fixed allocation sub frame further comprises constant bit rate slots for voice packets. (Col. 7 lines 6-40)

Regarding claim 81, Raychaudhuri discloses The software product of claim 78 wherein the dynamic allocation sub frame further comprises variable bit rate slots for variable bit rate packets. (Col. 7 lines 6-40)

Regarding claim 82, Raychaudhuri discloses the software product of claim 78 wherein the dynamic allocation sub frame further comprises data slots for data packets. (Col. 7 lines 6-40)

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4. Claims 17, 19-21, 23-26, 28-29, 58, 60-62, 64-67, 69 and 70 rejected under 35 U.S.C. 103(a) as being unpatentable over Raychaudhuri.

Regarding claims 17, 19-21, 23-26 and 28-29, Raychaudhuri discloses the method of claim 1 wherein various types of multimedia communication are used and that any type of multimedia may be used (Col. 4 line 36-53). Though, not expressly disclosed, Examiner takes official notice that it was notoriously obvious in the art at the time of the invention that facsimile, audio broadcast, web browsing, file transfer, network gaming, PUSH, chat room communication, e-mail, video broadcast and video conferencing are various types of multimedia communication. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use any or all of these types of communication, to provide every possible service to a user, which would be necessary to stay competitive in the telecommunications market.

Regarding claims 58, 60-62, 64-67, 69 and 70, Raychaudhuri discloses the method of claim 1 wherein various types of multimedia communication are used and that any type of multimedia may be used (Col. 4 line 36-53). Though, not expressly disclosed, Examiner takes official notice that it was notoriously obvious in the art at the time of the invention that facsimile, audio broadcast, web browsing, file transfer, network gaming, PUSH, chat room communication, e-mail, video broadcast and video conferencing are various types of multimedia communication. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use any or

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all of these types of communication, to provide every possible service to a user, which would be necessary to stay competitive in the telecommunications market.

5. Claims 12 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Raychaudhuri in view of Boucher et al. (US 6,226,680 B1).

Regarding claim 12, Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of using various types of logic. Raychaudhuri does not expressly disclose last come first serve logic. Boucher discloses using last come first serve logic with a MAC layer. (Col. 16) Therefore it would have been obvious to one of ordinary skill in the art to use last come first serve logic in arbitrating the MAC layer, in order to implement a stack type system.

Regarding claim 53, the combination of Raychaudhuri discloses the method of claim 2 wherein arbitrating access is further comprised of using various types of logic. Raychaudhuri does not expressly disclose last come first serve logic. Boucher discloses using last come first serve logic with a MAC layer. (Col. 16) Therefore it would have been obvious to one of ordinary skill in the art to use last come first serve logic in arbitrating the MAC layer, in order to implement a stack type system.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 703-308-9298. The examiner can normally be reached on Monday-Thursday 6:30-5:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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7/12/04